DOCUMENT RESUME

ED 159 864 EC 112 292

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TITLE Racial Differences in Academic Achievement and Learner Self-Concept of School-Labeled EMR Students.
PUB DATE Nov 77
NOTE 23p.; Paper presented at the Annual Meeting of the Mid-South Educational Research Association (6th, Birmingham, Alabama, November 11, 1977)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Academic Achievement; *Blacks; *Educable Mentally Handicapped; Exceptional Child Research; Mentally Handicapped; *Racial Differences; *Self Concept

ABSTRACT

Twenty pairs of Black and White school-labeled educable mentally retarded students (10-12 years old) were matched for deviation social quotients to determine if differences existed in academic achievement and learner self concept on a racial basis. Analysis of scores on the Peabody Individual Achievement Test and The Florida Key revealed nonsignificant differences in achievement and learner self concept of the two groups. (Author)

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RACIAL DIFFERENCES IN ACADEMIC ACHIEVEMENT AND LEARNER SELF-CONCEPT OF SCHOOL-LABELED EMR STUDENTS

by

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A Paper Presented at the Sixth Annual Meeting
Mid=South Educational Research Association

Birmingham, Alabama
November 11, 1977

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ABSTRACT

Twenty pairs of black and white school-labled EMR students were matched for deviation social quotients to determine if differences existed in academic achievement and learner self-concept on a racial basis. Statistical analysis revealed nonsignificant differences in achievement and learner self-concept for the matched pairs.

RACIAL DIFFERENCES IN ACADEMIC ACHIEVEMENT AND
LEARNER SELF-CONCEPT OF SCHOOL-LABELED EMR STUDENTS

The American Association on Mental Deficiency (AAMD) issued a definition of mental retardation that provided the base for characterizing the mentally retarded stressing the concomitancy of adaptive behavior and general intellectual functioning. That definition reads:

> Mental retardation refers to significantly sub-average general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental Period (Grossman, 1973, p. 5).

The AAMD definition fails to account for possible differences that might occur between socio-cultural groups in both adaptive behavior and general intellectual functioning. It has been suggested that being black is a distinct intellectual handicap because of the social influence and the quality of educational opportunities (Mercer, 1973; Sontag, Nelson & Baker, 1958). Further, the pattern of routine testing, labeling, classification, and placement of children seldom includes a measure of adaptive behavior. Often, poor and minority group children who function normally outside of the school setting are inappropriately stigmatized, and subsequently placed in inappropriate educational settings (Mercer, 1973).

Mercer has demonstrated the discrepancies in classification of minority ethnic populations in an urban area of California based on intellectual assessment as the sole or major criterion for classification. Bunch (1976) reported a significant relationship between IQ and Social Quotient (SQ) for poor, rural white students screened for placement in

programs for the educable mentally retarded (EMR), but found a non-significant relationship for poor, rural blacks in the same screening procedure.

These findings indicate that rural black and white children differ in the concomitancy of their adaptive behavior and general intellectual functioning and agree with the findings that the discrepancy between measured intelligence and adaptive behavior is significantly greater for black than white subjects (Adams, McIntosh, & Weade, 1973). There is a sparcity of research regarding the differences between the two racial groups who have been school-classified as mentally retarded, but who, in essence, constitute a population of pseudo-retarded individuals.

The inappropriately school-labeled population of black and white students are of special concern when it is known that the two groups are so often placed in classes for the EMR as the result of inadequate, but similar classification and placement procedures.

This research was conducted to determine if differences exist between rural Southern blacks and whites who have been classified and placed in classes for the educable mentally retarded on the basis of the single criterion IQ score, but who, in essence, constitute a population of pseudo-retarded individuals.

It was pertinent to determine if the adaptive behavior correlate, once determined, is manifested in academic performance and feelings about themselves as learners in the pseudo-retarded population. This is of special concern when the two groups are so often placed in classes for the educable mentally retarded as the result of inadequate, but similar classification and placement processes.

Academic Achievement of the Mentally and Pseudo-Retarded

The evidence is available that ethnic minorities from economically depressed areas compromise alarming disproportionate populations in classes for the educable mentally retarded (California State Department of Education, 1967; Franks, 1971; Mercer, 1973). A high percentage of children from economically depressed areas are labeled mentally retarded for socioeconomic reasons. That such children are capable of acquiring basic skills given a learning environment which maximizes pupil performance has been shown (University of Washington, 1971).

Academic achievement of the pseudo-retarded has not been a subject of considerable research. Because placement in classes for the educable mentally retarded has been based on single criterion measures, generally there has been little attention to the academic achievement of those whose placement was erroneous or whose classification was singular in nature.

Arena (1970) indicated that mental maturity is probably the best single predictor of academic achievement at the present time, although the research has shown that it alone does not account for all the variance in academic achievement. The magnitude of the coefficients of correlation between mental maturity and academic achievement reported in the literature indicates that mental maturity accounts for about 45 to 65% of the variance.

The role of social maturity in the prediction of academic success has received little attention. Arena (1970) concluded that a significant relationship between social age as measured on the Vineland Social Maturity Scale and the prediction of academic success did not

exist. The research was done on normal children and did conclude that common elements function in the determination of mental and social age.

With regard to the relationship between social maturity and academic achievement of the educable mentally retarded, research provides conflicting results. Flax (1972) found nonsignificant relationships between social competence and academic achievement. Kim (1968) found social maturity to be a better predictor of school grades than either standard achievement measures or ability measures among the normal population, as well as with high and low achievers.

With regard to black and white mentally retarded children and the areas of cognitive development, mediation of academic concepts and structure of intelligence adaptability, no significant differences between the two populations were found in their cognitive abilities, mediation of academic concepts, or the scoring patterns on individual intelligence measures (Klinger, 1974; Marsh, 1976; Woodall, 1976).

The primary concern in the prediction of academic achievement is to ascertain just what elements or facts are important to evaluate and confirm, especially for the pseudo-retarded child. The research has not been addressed to this concern (Tuckman, 1971-72).

Self-Concept and the Mentally Retarded

Certainly the black-white question has received considerable attention by investigators. Kvaraceus, Gibson, Patterson, Seaholes & Grambs (1965) postulated that there are significant differences between the races in self-concept when the two groups are of similar mental ability. Especially here on the results inconclusive and conflicting (Bachman, 1970; Coleman, Campbell, Hobson, McPartland, Mood, Weinfield & York, 1966; Hunt & Hardt, 1969; McDill, Meyers &

Rigsby, 1966; McDonald & Gynther, 1965; Powell & Fuller, 1970; Rosenberg, 1965; Rosenberg & Simmons, 1971; Wendland, 1969).

The area of mental retardation has also received its share of self-concept research. There has been concern expressed with regard to the measurement of self-concept of the mentally retarded due to the lack of appropriate instruments that are easy to apply and interpret (Gallagher, 1959). A number of writers apparently believe that there is a consistent relationship between low self-appraisal and low intelligence quotient (Bialer, 1968(and some studies support this conclusion (Gorlow, Butler & Guthrie, 1963). Ringness (1961) found that overestimation of success was a tendency of the retarded group, but not for the average or bright group. Fine & Caldwell (1967) concluded that the retarded, as a group, were unrealistic in their self-perceptions. A possible solution to this problem was suggested by Jones (1959). It would require an investigator to develop his own methods of measurement of self-concept of the mentally retarded. Goldstein (1959), however, pointed out that such a procedure is indeed a difficult and complicated one.

One major reason for the absense or lack of suitable instruments noted was the restricted nature of measurement of personality assessment of retarded children. The general opinion seemed to be that self-report techniques are inappropriate for use with the retarded because of the lack of skills of the group to report their feelings accurately (Knight, 1970).

Fine & Caldwell (1967) found that educable mentally retarded subjects in the 9 to 13 age range rated themselves as good or better than classmates and chronological peers. The authors concluded that

the self-perceptions of the retarded were inaccurate, inflated, and unrealistic. Lewis (1974) found that EMR children in a variety of educational settings did not differ in their self-concept, attitude toward school, or academic achievement despite the fact that some were being educationally served in regular classes, some in self-contained special classes, and some through resource instruction.

Specific attention to black-white differences among the retarded population has been sparse. Knight (1969) found no significant difference between the races on measures of expressed self-concept. She did conclude that the adequacy of self-image for the two groups might be different although each group felt satisfied with the self to the same relative degree.

Teacher Attitudes and the Self-Concept/Academic Achievement Relationship

Purkey (1970) has reported that the great majority of current research indicates rather insistently the relationship between self-esteem and academic achievement. Consequently, the relationship should no longer be ignored by parents and teachers. With the handicapped individual, as well, the messages that he gets from him environments determine to a great extent his feelings about himself--what he can do, who he is, and how he should behave. The question of how the child for whom a classification of mental retardation is erroneous reacts to the label of retardation has received minimal attention.

The label "retarded" connotes

> . . .expectations of ineducability, social incapacity . . . incompetence (Hobbs, 1975, p. 34).

On the basis of stigmas sanctioned by official labels decisions are made that help to determine the feelings about oneself that he gains. Jones (1972) reported the personal reactions of two students labeled as retarded:

> Some of my friends won't even talk to me because they thing I'm too dumb . . .I don't care what they think (p. 561).
>
> If you want a girlfriend, she won't like you 'cause you're in the special class. She'll think you're stupid and kinda weird. They think you're retarded (p. 561).

Although inconclusive, the evidence supports a positive correlation between the way pupils perceive their teacher's feelings about them and their feelings about themselves (Davidson & Lang, 1960). The results obtained by Beez (1968), Hasket (1969) and Meichenbaum, Bowers & Ross (1969) indicated that teacher's expectancies may affect his estimates of pupil performance and his attitude and behavior toward the students. This may subsequently affect pupil performance because the student perceives the teacher's feelings as negative or positive. Members of racial and ethnic minorities are especially vulnerable to the effects of negative stereotyped expectations.

Smith & Greenberg (1973) reported that teacher attitudes toward the label of mental retardation appeared to be a function of social class with the student of low social class more likely to be labeled retarded. Further, teacher decisions regarding the appropriateness of the mentally retarded label were not integrated with decisions regarding their adaptive behavior. Carpenter & Busse (1969) studied the development of self-concept in black and white welfare children. The results indicated that blacks do not become increasingly more negative in self-concept than do whites of the same social status. Indeed, white children became more negative than the blacks. This is inconsistent with the other findings regarding race and social class as factors in the development of self-concept.

Caplin (1966) found that black students who expressed more positive self-concepts had higher academic achievement. Caplin concluded that it is the student's regard for himself, regardless of his racial backgrounds, that prompts school success.

Purkey (1970) cautioned that the self-concept/academic achievement relationship is a circular phenomenon, i.e., the self-concept influences performance and that performane influences the self-concept. Change in one is associated with a change in the other.

Studies cited by Purkey lead to the generalization that once a child becomes aware of imposed limitations through categorization, tracking, humiliation, punishment, and/or competition, the child then views school as an enemy and further increases negative feelings about the self.

Although inconclusive, there is evidence that a positive correlation exists between pupil feelings about themselves and the way they perceive their teacher's regard for them (Davidson & Lang, 1960). Krupczak (1972) investigated the relationships among student self-concept of academic ability, teacher perception of student ability, and student achievement and found a relationship between student and teacher perceptions of student academic ability and found that both teacher and student perceptions correlated well with grade point average. This study supported the hypothesis of Rosenthal & Jacobson (1968) that teachers' expectations about a pupil's performance may develop into a self-fulfilling prophecy.

Caplin (1969) found a significant positive relationship between self-concept and academic achievement with the more positive the self-

concept the higher the academic achievement.

Relationship of Self-Concept/Academic Achievement with the Retarded

Among the mentally retarded population, studies relating to self-concept and academic achievement have indicated that self-concept contributes little to the prediction of achievement when studied in conjunction with other variables, that neither self-concept nor achievement were causually ponderant to the other, and that the relationship of the two was only moderate regardless of the fact that IQ was controlled (Wodrich, 1975). Rouse (1973) found that when achievement and IQ were controlled there was no significant difference among EMR populations placed in three types of delivery settings on self-concept and academic achievement.

Schurr, Towne, & Joiner (1972) studied the trends in self-concept of academic ability over two years of special class placement and concluded that although there may be an expressed high self-concept of academic ability among the retarded, he may still not achieve because achievement is not expected (the self-fulfilling prophecy) or because the educational opportunities of special class placement had not permitted an efficient learning environment. Gusking & Spicker (1968) and Gardner (1968) concluded that there is no clear evidence that the placement in a special class has an effect on self-concept one way or the other. Synder (1966) found that personality variables are the crux of the matter in determining how well the retarded will achieve their academic potential.

Two studies (Gorlow, et al., 1963; Guthrie, Butler, Gorlow & White, 1964) suggest that the retarded are perhaps not very different from the normal population with regard to concerns about themselves and the correlates of high self-esteem.

And certainly with conflicting evidence regarding the differences and relationships between self-concept and academic achievement for black and white populations, for educable mentally retarded populations, and for normal groups, there is a lack of information regarding the differences of the pseudo-retarded, both black and white, in their academic achievement and their self-concepts of themselves as learners.

This study was concerned with demonstrating if differences exist between the two groups in academic achievement and learner self-concepts when matched for adaptive behavior based on deviation social quotients.

Specifically, two major questions of this research were: (1) to determine if a difference in academic achievement existed for the two groups; and (2) to determine if a difference in learner self-concept existed for the two groups. In addition, differences that might exist in the curriculum-related factors of reading recognition, reading comprehension, mathematics, spelling and general information were studied, as well as differences that might exist in the factors contributing to learner self-concept: coping, asserting, investing, and relating.

Method

Subjects

The research sample consisted of 20 pairs of black and white school-labeled educable mentally retarded subjects matched for adaptive quotients. The mean IQ for the black sample was 67 and 66 for the white

sample. Correlated t-Test for the pairs was not significant ($p < .01$). The students all scored within two standard deviations from the mean score of 100 on the Silverstein (1971) formula for computing deviation social quotients for the Vineland Social Maturity Scale (Doll, 1965) one of the recommended measures for determining adaptive behavior of the 1973 AAMD manual. Subjects were all from 10 years, 9 months to 12 years, 3 months of age and were being served in self-contained classrooms for the EMR in rural north-eastern Mississippi. The sample represented pairs with non-significant differences in intelligence and adaptive quotients. None of the subjects had been measured for adaptive behavior in the classification process and all had been in their EMR class for a two to three year period.

The matching was based on the DSQ's that resulted from the administration of the Vineland using the special class teacher as the informant. Results of the adaptive behavior assessment provided a range of adaptive quotients from 84 to 102.

Procedures

All forty students were administered the Peabody Individual Achievement Test (PIAT) (Dunn & Markwardt, 1970) according to standarized administration procedures. Measurement was completed at the end of the school year and represented cumulative achievement in the curriculum-related areas measured by the PIAT. Special class teachers inferred the learner self-concept through completion of the Florida Key (Purkey, Cage,&Graves, 1973). The Key provides teacher ratings of student behaviors in the four factor areas of relating, asserting, investing, and coping.

Results

The means and standard deviations of raw scores on the total test and subtests of the PIAT are presented in Table 1. The t-Test for correlated samples was used to determine significant differences. The obtained t values were not significant at the .05 level (df, 19). Therefore, the first hypothesis was not tenable.

Table 1

Group Means and Standard Deviations of Subtests and Total Test of the Peabody Individual Achievement Test

Variable	Black		White	
	Mean	S.D.	Mean	S. D.
Subtest				
Mathematics	23.65	5.92	24.30	8.72
Reading Recognition	24.40	4.99	24.50	4.48
Reading Comprehension	24.05	5.55	23.95	4.48
Spelling	26.15	6.57	24.65	6.14
General Information	15.35	4.05	17.50	5.84
Total Test	113.60	19.75	114.90	21.65

The means and standard deviations of the total scale and factor scales of the Florida Key are presented in Table 2. The t-Test for correlated samples was used to determine significant differences. The obtained t values were not significant at the .05 level (df, 19). Therefore, the second hypothesis was not tenable.

Table 2

Group Means and Standard Deviations of

Factor and Total Scores of the

Florida Key

Variable	Black		White	
	Mean	S. D.	Mean	S.D.
Factor				
Relating	17.85	4.49	18.80	4.07
Asserting	20.75	7.72	24.10	5.38
Investing	4.90	2.72	6.05	2.18
Coping	14.40	4.45	14.25	4.16
Total Score	57.90	17.17	63.20	12.15

Discussion

The outstanding finding of this study was that no significant differences exist between the two groups in the area of total academic achievement, achievement in the curriculum-related areas of reading recognition, reading comprehension, mathematics, spelling, and general information and in the areas of learner self-concept.

These findings support the findings that black and white school-labeled EMR students do not differ in their cognitive abilities (Marsh, 1976) or in their mediation of academic concepts (Klinger, 1974). Findings further support the results obtained by Arena (1970) and Flax (1972) that no significant relationship between social maturity and the prediction of academic success or actual achievement exists.

These results support the contention of Cook and Schwarz (1969) that race is not a differentiating factor in academic achievement of EMR students, and in this case a sample which was pseudo-retarded by AAMD standards.

With regard to self-concept differences of blacks and whites, findings of the study support the results of Coleman, et al (1966) of no differences between the two races and contradicts the findings of Caplin (1969), who reported significantly lower self-concepts for blacks than whites. Findings by Kvaraceus, et al (1965) that significant differences exist between the self-concepts of black and white children of similar mental ability are not supported by this study.

Knight (1969) found no significant differences in self-concept between black and white EMR boys matched for IQ, mental age, chronological age, and socioeconomic status. These findings are supported by this present investigation.

Based on the results of this study, several conclusions are reached. Of particular importance in the identification and classification of mental retardation, a measure of adaptive behavior would help to establish a model of psychological assessment that is an asset model orientation stressing the adaptive abilities of individuals.

The misidentification of mental retardation does not appear to have been any more deleterious to blacks than whites in the areas of academic achievement or the individual's feelings about himself as a learner. It is unknown how much effect social maturity plays in academic achievement and learner self-concept, but there is an evident need for continued research

into this sphere. It is important that research be conducted to determine if the lack of differences in academic achievement and learner self-concept continues, especially in view of the implementation of new guidelines for nondiscriminatory testing and the individualized educational plans required by Public Law 94-142.

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